ZAYTSEVA, N.G.; KUZNETSOVA, M.Ya.; LEVENBERG, I.Yu.; KHALKIN, V.A.

Light isotopes of iodine. Radiokhimiia 2 no.4:451-457 '60.
(MIRA 13:9)

(Iodine—Isotopes)

Khalkin V A

S/186/60/002/005/013/017
A051/A127

AUTHORS: Belyayev, B. N.; Van-Yun-Yuy, Sinotova, Ye. N; Nemet, L.; Khalkin, V. A.

TITLE: Separation of astatine from lead, bismuth and thorium, irradiated with protons of 660 MEV energy

PERIODICAL: Radiokhimiya, v. 2, no. 5, 1960, 603 - 613

TEXT: The purpose of this article was to develop a quantitative method for separating radio-chemically pure astative from irradiated lead, bismuth and thorium, with fast protons, which would be eadily reproduced and would yield about 60% astatine from the irradiated targets with a yield tolerance of ± 5%. Development of such a method is hampered by the insufficient knowledge of the chemical properties of At. In order to establish the quantitative method for At separation with good reproducibility of the results the authors claim that it is necessary to investigate the behavior of the element at each stage of purification. This was accomplished on radio-chemically pure At, separated out from thorium as an indicator. The behavior of At was checked by the gamma-emission, which, in turn,

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was recorded by a MC-11 (MS-11) counter. Reference is made to the work of Neuman H. M. (Ref. 14: J. Inorg, Nucl. Chem., 4, 5/6, 349, 1957) where a complete description is given of a method for the extraction of At. The authors obtained an improved method, using diluted HCl solutions (Figure 1). Extraction of At increases in the presence of nitric acid. Small quantities of HF which have been added to the dissolved thorium in nitric acid has no effect at all on the extraction of At. The most convenient method for extracting At from an alkaline solution of sodium stannite after re-extraction is said to be the co-precipatation of the element with metallic tellurium from an acidified solution of stannite with HCl. Kurchatov, B. V., Mekhedov N. V. et al. (Ref. 1: ZhETF, 35, 1 (7), 1958) give a complete description of the method. Co-precipitation of At from HCl solutions with tellurium helps not only to concentrate the At and eliminate the large quantities of salts present in the solution, but also to conduct an effective purification from Sb, Os, Tl and J. Experiments showed that the presence of small quantities of tellurium in the H_2SO_4 solution (~10 mg) considerably spoiled the conditions of distillation of At. The recommended method developed by the authors is described as follows: Based on data of the behavior of At at each stage of purification it was suggested to dissolve 1 gr. of metallic

Separation of astatine from lead, ...

bismuth irradiated with 660 Mev energy protons on the internal beam of the synchrocyclotron, in 5 ml of concentrated nitric acid, while heating it in a flask with a reversible cooler; 40 ml of 8 M HCl, saturated with chlorine, were added to the nitric acid solution. The extraction was carried out with 60 ml of diisopropyl ether in an extractor equipped with a mechanical mixer. The organic layer was trice washed with 15 ml of 8 M HCl. The At was extracted from the ether with 40 ml of 0.1 M solution of sodium stannite in 2 M N_aOH. 10 - 15 mg of sodium tellurite 2 - 3 mg of lanthane ($LaCl_3$) and 1 - 2 mg of sodium chloroaute were added to the alkaline solution. The solution was separated from the residue by filtration through a glass filter No. 4. The precipitation of the tellurium with the sodium stannite was repeated twice. The alkaline filter was acidified with 20 ml of concentrated HCl, containing about 0.2 mg of Te to 1 ml. The precopitation of the Te from the acidic solution was carried out with intensive mixing. After coagulation of the residue, 5 mg of Te was added twice. The Te residue, containing At, was separated from the solution by centrifuging, washed with a 6M HCl and dissolved in a few drops of nitric acid. 20 ml of 6 M HCl were added to the obtained solution, and the Te was precipitated with stannour chloride. After coagulation of the precipitate, the precipitation of the Te was repeated (5 mg). The formed residue was centrifuged, washed with concentrated

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HCl and dissolved in 5 ml of 8 M HCl while passing through a gaseous chlorine. The At was separated from the Te by extracting it in to diisopropyl ether. The ether layer (about 6 ml) was washed twice with 1.5 - 2 ml of 8 M HCl and the At was re-extracted with water (twice with 5 ml each time). After extraction a solution was obtained of radio-chemically pure At, about 0.01 M according to HCl, containing traces of the diluent. When extracting At formed from lead, the method is more complicated, necessitating first the elimination of lead chloride, which precipitates when HCl is added to the nitric acid. The gamma-spectra of At were studied on a scintillation spectrometer. Findings agree well with data of Strominger D., Hollander, J. M. Seaborg G. T. (Ref. 16: Rev. Modern Phys. 30, 2, 799, 1958.) on gamma-emission of At^{208}, At^{209} and At^{210}. When measuring the At preparations formed from the lead, in addition to the known gamma-lines, 3 lines were found (660 kev with T = 5 hours, 165 kev and 32 kev) which, according to literature data, cannot be attributed to isotopes of At. The total intensity of these lines is about 10% of the intensity of the entire specimen. The determination of the half-lives of the various isotopes of At was carried out with

Separation of astatine from lead, ...

only for samples formed from thorium. It was impossible to produce radiochemically pure At from lead. In checking the reproducibility of results of the given method it was noted that comparitively large amounts of At loss (up to 50%) was connected mostly with the incomplete extraction of the At in the various stages of purification. However, it is pointed out that these losses can be avoided by acidifying the alkaline solution of the stannite, containing At with HCl, to which small quantities of Te have been added. Here it is assumed that owing to the competition of adsorption of At on Te, the adsorption of the element by the walls of the glass vessel is excluded. The favourable reproduction of results of the yields makes this suggested method applicable for the determination of absolute cross-sections of At formation in various nuclear reactions. There are 6 figures, 3 tables and 16 references: 5 Soviet-bloc, 11 non-Soviet-bloc. The four recent English language publications read as follows: M. Lefort, G. Simonoff, X. Farrago, C. r., 248, 219, 1959; E. K. Hyde, J. Chem. Educ. 36, 1, 15, 1959; H. M. Neuman, J. Inorg, Nucl. Chem., 4, 5/6, 349, 1957; D. Strominger, J. M. Hollander, G. T. Seaborg, Rev. Modern Phys., 30, 2, 799, 1958.

Card 5/5

ZAYTSEVA, N.G.; KUZNETSOVA, M.Ya.; LEVENBERG, I.Yu.; POKROVSKIY, V.N.; KHALKIN, V.A.

Existence of isomers of Te^{119}. Izv.AN SSSR.Ser.fiz. 24 no.9: 1083-1085 S '60. (MIRA 13:9)
(Tellurium)

SELINOV, I.P.; VARTANOV, N.A.; KHULELIDZE, D.Ye.; BLIODZE, Yu.A.; ZAYTSEVA, N.G.; KHALKIN, V.A.

New isotope Te^{115}. Zhur.eksp.i teor.fiz. 38 no.5:1654 My '60. (MIRA 13:7)

(Tellurium--Isotopes)

83165

S/056/60/039/002/002/044
B006/B056

24.6600

AUTHORS: Van Yun-yuy, Kuznetsov, V. V., Kuznetsova, M. Ya., Khalkin, V. A.

TITLE: Investigation of the Secondary (α,xn) Reactions on Bismuth

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 2 (8), pp. 230-234

TEXT: The authors determined the absolute production cross section and the relative yields of At^{210} and At^{211} from bismuth irradiated with 120- to 660-Mev protons under rigorous experimental conditions; the experimental data hitherto available in this field (among others those obtained by N. A. Perfilov, V. I. Ostroumov, and B. V. Kurchatov) partly show considerable divergence. High-purity bismuth (impurity concentration $<10^{-4}$%) was irradiated on the synchrocyclotron of the Laboratoriya yadernykh problem OIYaI (Laboratory of Nuclear Problems of the Joint Institute of Nuclear Research) with 120-660 Mev protons. In order to prevent astatine losses during the irradiation, the bismuth was filled

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Investigation of the Secondary (α,xn) Reactions on Bismuth

S/056/60/039/002/002/044
B006/B056

into a quartz ampoule up to half its capacity. Irradiation lasted from five to 15 minutes. The proton beam intensity was determined from the Na^{24} production in the aluminum foil surrounding the lower half of the ampoule. The astatine was extracted from the bismuth three hours after the end of irradiation, and was precipitated together with the elementary tellurium. The α-absorption in the tellurium layer and in the film by which it was covered was experimentally determined, and it was found that 25% of the alpha particles of At^{211}(E_α = 5.86 Mev) and Po^{211}(7.44 Mev) and 30% of those of Po^{210}(5.3 Mev) were absorbed in the tellurium layer + film. The alpha activity of the astatine preparations of tellurium was measured by means of a scintillation counter (natural background 10 - 20 pulses/hour). Two half-lives, (7.3±0.2) hours and 140 days, were measured which corresponded to At^{211} and Po^{210}. Po^{210} forms in At^{210} decay ($T_{1/2}$ = 8.3 hours; K capture). The production cross sections measured for At^{211} and At^{210} as well as their ratios are given in a Table. Among other things, the following values were obtained:

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Investigation of the Secondary (α,xn) Reactions on Bismuth

at E_p = 130 Mev - 0.52 and $0.33 \cdot 10^{-29} cm^2$; at E_p = 660 Mev - 2.60 and $2.14 \cdot 10^{-29} cm^2$ (for At^{211} and At^{210}, respectively). These values are accurate to within ±30%. The results obtained indicate that in the range of $120 \leq E_p \leq 660$ Mev the spectrum of the α-particles produced in bismuth disintegration hardly changes its shape. The production cross section of α-particles with E > 20 Mev was calculated and one obtains:

E_p [Mev]	130	170*	300	400	480*	530	580	660
$\sigma(E_\alpha > 20Mev)$, $[10^{-25} cm^2]$	0.42	1.03	1.58	1.55	2.03	2.28	1.82	2.1

The values with asterisks were calculated from a formula by V. V. Babikov. According to $P(E) = \frac{E-V}{\tau^2} \exp(-\frac{E-V}{\tau})$ with τ = 6 Mev, V = 12 Mev, the spectrum of the fast α-particles was calculated. The result obtained is shown in curve 1 of the Fig.; for comparison, the spectral curves from Refs. 2 and 5 have also been entered. The causes of the quantitative

Card 3/4

VAN YUN-YUY [Wang Yung-yu]; KUZNETSOV, V.V.; KUZNETSOVA, M.Ya.; MEKHEDOV, V.N.
KHALKIN, V.A.

Investigation of the secondary capture of lithium nuclei by lead. Zhur. eksp. i teor. fiz. 39 no.3:527-535 S '60.
(MIRA 13:10)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Astatine--Isotopes)
(Particles (Nuclear physics)--Capture)
(Lead)

VAN YUN-YUY; KHALKIN, V.A.

Extraction of astatine with diisopropyl ether from solutions of strong acids in the presence of oxidizing agents. Radiokhimiia 3 no.6:662-666 '61. (MIRA 14:12)
(Astatine)

33188

S/186/61/003/006/009/010
E040/E185

24.6600

AUTHORS: Kuznetsova, M.Ya., Min Nam Buk, Rybakov, V.N., and Khalkin, V.A.

TITLE: Formation of Te^{127} from I^{127} under bombardment by high-energy protons

PERIODICAL: Radiokhimiya, v.3, no.6, 1961, 755-759

TEXT: Ni^{65} appears to be formed by the $Cu^{65}(p,p\pi^{+})Ni^{65}$ reaction when copper is bombarded by high-energy protons. Because no success was achieved in the further study of the above reaction using La^{139} and Au^{197} targets, an investigation was made of Te^{127} formation from I^{127} under the action of protons with the energy of 120-660 meV. The investigation was made in the internal beam of the synchrocyclotron at the Ob"yedinennyy institut yadernykh issledovaniy (Joint Nuclear Research Institute). Full details are given of the test methods employed, as well as the data for the dependence of Te^{127} formation from I^{127} as a function of the energy of the bombarding protons (table). In order to obviate the difficulties usually associated with the determination of the

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Formation of Te^{127} from I^{127} S/186/61/003/006/009/010
E040/E185

radioactivity of Te^{127}, the electronic component of the target radiation was determined by means of a magnetic analyzer (Ref.9: M.Ya. Kuznetsova, V.M. Mekhedov, Izv. AN SSSR, seriya fiz., v.21, 7, 1020, 1957). An analysis is made of the reactions leading to the formation of Te^{119} and Te^{127} isotopes under the conditions used in the experiments. It is concluded that Te^{127} is formed mainly by the reaction I^{127}_{53} (n,p) Te^{127}_{52} under bombardment with protons in the energy range of 120-660 meV. The experimentally observed elevated yield of Te^{127} in the proton energy range of 160-260 meV is interpreted as being due to the reaction $I^{127}_{53}(p,p\pi^{+})\,Te^{127}_{52}$.
There are 1 table and 20 references: 10 Soviet-bloc, 1 Russian translation from non-Soviet-bloc publication, and 9 non-Soviet-bloc. The four most recent English language references read as follows:
Ref.13: E.B. Paul, R.L. Clarke,
Canad. J. Phys., v.31, 2, 267 (1953).

Card 2/3

STRIGACHEV, A.T.; NOVIKOV, L.S.; SOROKIN, A.A.; KHALKIN, V.A.; TSVETKOVA, N.V.; SHPINEL', V.S.

Investigating neutron-deficient Tb isotopes. Izv. AN SSSR. Ser. fiz. 25 no.7:813-825 Jl '61. (MIRA 14:7)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova i Ob "yedinennyy institut yadernykh issledovaniy.
(Terbium--Isotopes)

ABDURAZAKOV, A.A.; GROMOV, K.Ya.; DZHELEPOV, B.S.; KHALKIN, V.A.

Conversion electrons from erbium fractions. Izv. AN SSSR. Ser. fiz. 25 no.9:1096-1100 '61. (MIRA 14:8)

1. Sredneaziatskiy politekhnicheskiy institut i Ob"yedinennyy institut yadernykh issledovaniy.
(Erbium--Isotopes)
(Internal conversion(Nuclear physics))

VAN FU-TSZYUN [Wang Fu-chiung]; GAN MEN-KHUA [Kang Mêng-hua]; KHALKIN, V.A.

Chromatographic concentration of astatine. Radiokhimia 4 no.1: 94-98 '62. (MIRA 15:4)
(Astatine) (Chromatographic analysis)

S/056/62/043/005/018/058
B102/B104

AUTHORS: Zaytseva, N. G., Kuznetsova, M. Ya., Min Nam Buk, Khalkin, V.A.

TITLE: Investigation of nuclear reactions of the type (p,xn) and (p,2pxn) on separated tellurium isotopes

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 5(11), 1962, 1672-1677

TEXT: In order to study the excitation functions of (p,xn) and (p,2pxn) reactions on Te^{125} and Te^{126}, pressed targets of 3% Te + 97% Al powder were irradiated at the synchrocyclotron of the OIYaI with protons of 120 - 660 Mev. The products of (p,xn) reactions, which are radioisotopes of I, were separated during 12 hrs after irradiation; the products of (p,2pxn) reactions, which are Sb radioisotopes, during 2-3 hrs after irradiation. Their activity was measured with a GM counter of type MCT-40 (MST-40), β and X rays were separated by a beryllium filter. The results obtained (Table 2) are discussed in detail and partly compared with estimates based either on Serber's cascade-evaporation mechanism (Phys. Rev. 72, 1114, 1947) or on that proposed by Metropolis et al. (Phys. Rev.

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S/056/62/043/005/018/058

Investigation of nuclear reactions of ...B102/B104

Table 2

Реакция	E_p				
	120	200	300	480	660
$Te^{126}(p, 2p6n)Sb^{119}$	5,6	6,4	6,8	6,8	5,7
$Te^{123}(p, 2p5n)Sb^{119}$	9,1	—	6,8	5,1	6.8
$Te^{126}(p, 2p5n)Sb^{120}$	9,4	12,1	10,2	9,2	8,6
$Te^{12}(p, 2p4n)Sb^{120}$	10,6	—	7,6	6,8	10,2
$Te^{126}(p, 2p3n)Sb^{122}$	18,1	14,0	21,1	22,0	21,6
$Te^{125}(p, 2p2n)Sb^{122}$	20,0	—	17,6	15,4	22,1
$Te^{126}(p, 2pn)Sb^{124}$	11,6	12,7	15,0	18,2	18,0
$Te^{125}(p, 2p)Sb^{124}$	9,5	—	11,0	12,6	20,0
$Te^{126}(p, 4n)J^{123}$	15,6	5,5	2,2	2,0	1,8
$Te^{125}(p, 3n)J^{123}$	20,0	—	2,4	—	1,8
$Te^{126}(p, 3n)J^{124}$	15,4	5,5	2,8	1,9	2,2
$Te^{125}(p, 2n)J^{124}$	13,3	—	2,5	2,2	2,3
$Te^{126}(p, 2n)J^{125}$	13,0	4,6	2,3	1,2	1,8
$Te^{125}(p, n)J^{125}$	7,2	—	1,2	—	—
$Te^{126}(p, n)J^{126}$	8,5	~3,0	1,1	0,8	1,2
$Te^{125}(p, ?)J^{126}$	2,2	—	0,3	—	0,4
$\sigma(p, 2p)/\sigma(p, 2n)$ для Te^{126}	0,71	—	4,4	5,72	8,7

Card 3/3

NEFEDOV, V.D.; NORSEYEV, Yu.V.; SAVLEVICH, Kh.; SINOTOVA, Ye.N.; TOROPOVA, M.A.; KHALKIN, V.A.

Synthesis of some heteroorganic derivatives of polyvalent astatine. Dokl.AN SSSR 144 no.4:806-809 Je '62. (MIRA 15:5)

1. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova. Predstavleno akademikom A.N.Nesmeyanovym.
(Astatine)

S/186/63/005/002/002/005
E075/E136

AUTHORS: Khalkin, V.A., Paley, P.N., and Nemodruk, A.A.

TITLE: Extraction of tetravalent plutonium from nitric acid solutions by oxygen-containing extractants

PERIODICAL: Radiokhimiya, v.5, no.2, 1963, 215-222

TEXT: Extraction of Pu(IV) was studied in relation to equilibrium concentration of HNO_3 in the aqueous phase in the absence of salting-out agents. Dibutyl and diethyl ethers, diethylketone, methyl n-butylketone, methylisobutylketone, butyl formate, ethyl acetate, butylacetate and benzaldehyde were used as extractants. At small HNO_3 concentrations (1 to 2.5 M) no extraction of Pu takes place. At higher acidities the distribution coefficients increase rapidly and reach the maximum values for HNO_3 concentrations in the aqueous phase between 4 and 10 M, depending on the extractant. Diethyl ether was the most effective extractant, the distribution coefficient for it being 11.5 for 5 M HNO_3 in the aqueous phase and 3.4M in the organic phase. The distribution coefficients do not depend on the quantity of Pu in solution in

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Extraction of tetravalent plutonium...

the range 0.004 γ/m to 4 mg/mℓ. It is shown that $Pu^{(IV)}$ is extracted in the form

$$\left[\begin{matrix}R\\R\end{matrix}\!>\!COH\right]_2 \left[Pu(NO_3)_6\right]$$

There are 6 figures and 3 tables.

SUBMITTED: January 26, 1962

Card 2/2

VAN FU-TSZYUN [Wang Fu-chiung]; NORSEYEV, Yu.V.; KHALKIN, V.A.;
CHAO TAO-NAN' [Ch'ao T'ao-nan]

Positive astatine ion in nitric acid solution. Radiokhimiia
5 no.3:351-355 '63. (MIRA 16:10)

(Astatine) (Ion exchange)

WAN FU-TSUNG' [Wang Fu-chun]; NORSHYEV, Yu.V.; KHALKIN, V.A.; CHAO TAO-NAN' [Ch'ao T'ao-nan]

Sorption of gold on cation exchangers from chloride solutions and its carrier-free isolation. Radiokhimiia 5 no. 6:661-664 '63. (MIRA 17:7)

ACCESSION NR: AP4024046 S/0048/64/028/002/0252/0256

AUTHOR: Wang,Ch'uan-p'eng, Gromov,K.Ya.; Zholev,Zh.; Kuznetsov,V.V.; Ik, Ma Kho; Muziol', G; Novgorodov, A.F.; Han, Shu-jun; Khalkin, V.A.

TITLE: Positrons in decay of Yb^{167} /Report, Fourteenth Annual Conference on Nuclear Spectroscopy held in Tbilisi 14 to 22 Feb 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.2, 1964, 252-256

TOPIC TAGS: positron spectrum, positron decay, γ-ray spectrum, log ft, transition matrix element, superfluid nuclear model, deformed nucleus, Yb^{167}, Tm^{167}

ABSTRACT: The principal purpose of the present study was to determine the log ft value for the decay of Yb^{167} to the 202.7 keV level of Tm^{167}. The log ft value calculated by other investigators for the transition from the $5/2^-[523]$ (ground state) of Yb^{167} to the $7/2^-[523]$ state of Tm^{167} on the basis of the Yb^{167}-Tm^{167} mass difference is about 3.8, which is significantly lower than the usually observed log ft values. It is of particular interest to obtain the precise experimental value of log ft for this transition in view of the fact that the experimental values of the matrix elements for transitions of this type can serve for verification of the se-

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ACCESSION NR: AP4024046

called superfluid model of deformed nuclei. The Yb^{167} for the measurements was separated from the lutetium fraction obtained by separation of the rare earth extracted from a tantalum target bombarded with 660 MeV protons for 2 hours in the internal proton beam of the Joint Institute for Nuclear Research synchrocyclotron. In view of the repeated rapid separation procedure employed, the source consisted primarily of Yb^{167} with a small admixture of Yb^{169}; this last could not significantly affect the results in view of its longer lifetime and different mode of decay. In addition to the positron spectrum, there was also investigated the γ-ray spectrum of Yb^{167}; a number of lines not previously detected were observed, but in the main, the spectrum agrees with that published by R.G.Wilson and M.Pool (Phys.Rev.120,1295, 1960). The Kurie plot of the β-spectrum is nearly a straight line showing an end-point energy of 650 keV. The log ft value for the transition of interest was calculated on the basis of decay period (17.3 ± 0.2 min), the disintegration energy (1670 ± 30 keV), and the branching ratio. The value obtained for log ft is $4.74^{+0.07}_{-0.03}$. This value is consistent with the log ft values for analogous transition in odd deformed nuclei; actually the accurate experimental value is known for only one other decay; the others are only approximate. The decay scheme for Yb^{167} is shown. Orig.art.has: 3 figures and 3 tables.

Card 2/3

ACCESSION NR: AP4024046

ASSOCIATION: none

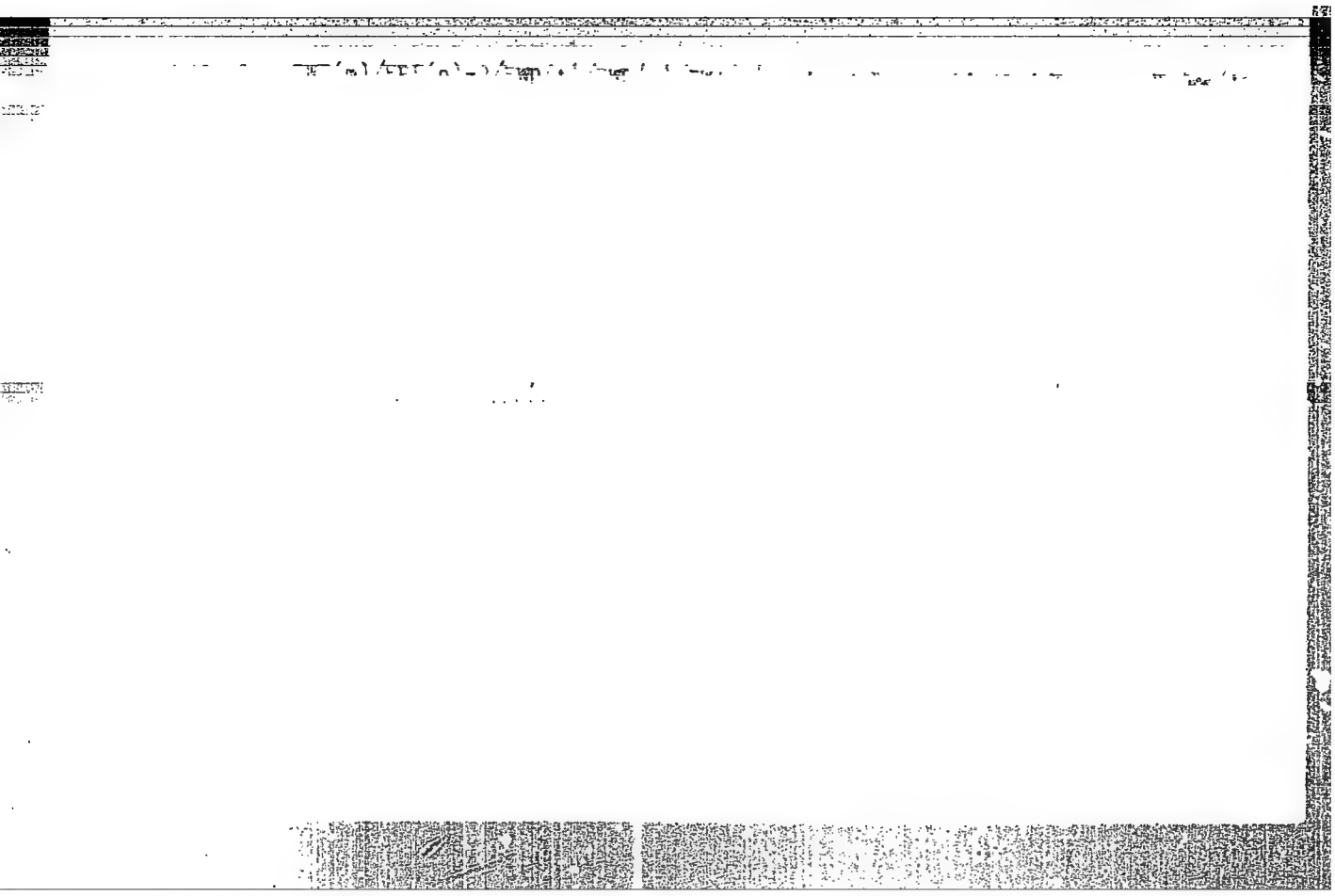
SUBMITTED: 00Aug63 DATE ACQ: 03Apr64 ENCL: 00

SUB CODE: NS NR REF SOV: 006 OTHER: 004

Card 3/3

NOVGORODOV, A.F.; KOCHETKOV, V.L.; LEBEDEV, N.A.; KHALKIN, V.A.

Obtaining radiation sources for β-spectroscopy by the electrolytic deposition of rare-earth elements.
Radiokhimiia 6 no. 1:73-78 '64. (MIRA 17:6)



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721720008-4"

L 27592-65

[illegible] electrons was observed. From this the authors conclude that the puri-

acid solutions. Astatine in the univalent state coprecipitates with $Tl_2Cr_2O_7$ and

ASSOCIATION: None

LEBEDEV, N.A.; TOLSTOY, N.S.; KHALKIN, V.A.

Microchromatographic column with remote control. Radiokhimiya 7 no.1:115-117 '65. (MIRA 18:6)

L 39087-66 EWT(m)/EWP(j)/EWP(t)/ETI IJP(c) BM/JS/JD/JG

ACC NR: AP6022876 (N) SOURCE CODE: UR/0186/66/008/002/0183/0189

AUTHOR: Mol'nar, F.; Khorvat, A.; Khalkin, V. A.; Volkov, V. A.

ORG: none

TITLE: Anion-exchange adsorption of gadolinium and europium by IRA-400 amberlite from water-methanol solutions containing neutral nitrates.

SOURCE: Radiokhimiya, v. 8, no. 2, 1966, 183-189

TOPIC TAGS: gadolinium, europium, nitrate, samarium, promethium, adsorption, ion exchange chromatography

ABSTRACT: The study was made in order to obtain data for a method of separating light radioactive rare earth elements for purposes of nuclear spectroscopy from gadolinium targets bombarded with 680 MeV protons. Most interesting among the products of the nuclear reaction are isotopes with the relatively short half-life of 0.5-5 hr, whose rapid chromatographic separation made it necessary to work with systems in which the distribution coefficients were small. Systems of this type were investigated by studying the anion-exchange adsorption of radioactive gadolinium and europium (obtained from a tantalum target irradiated with 680 MeV protons) on the strongly basic resin IRA-400 in the nitrate form from water-methanol solutions. The effect of nitrate cations (H^+, Li^+, NH_4^+, Na^+, Be^{2+}, Ca^{2+}, Mg^{2+}), temperature, and

Card 1/2 UDC: 543.544.6 (546.662+546.661)

L 39087-66

ACC NR: AP6022876 "APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721720008-4"

concentration of the nitrate salt on the distribution coefficients and separation factors of Gd and Eu was determined. It was established that eluents containing methanol and neutral nitrates make it possible to perform the anion-exchange separation of Gd and Eu. Preliminary data on a method of separating light rare earths (Eu, Sm, and Pm) in a carrier-free state from macroquantities of Gd bombarded with 680 MeV protons are presented. Orig. art. has: 8 figures and 3 tables.

SUB CODE: 07/ SUBM DATE: 21Dec64/ OTH REF: 009

Card 2/2 MLP

L 26659-66 EWT(m) DIAAP JD/JG

ACC NR: AP6017114 SOURCE CODE: UR/0048/65/029/012/2235/2238

AUTHOR: Gromov, K. Ya.; Zhelev, Zh. T.; Kalinnikov, V. G.; Kuznetsov, V. V.; Kun, Syan-tszin'; Muziol', G.; Han', Shu-zhun'; Khalkin, V. A.

ORG: none

B5

TITLE: Positrons in Gd sup 147 decay [This paper was presented at the 15th Annual Conference on Nuclear Spectroscopy and the Structure of the Atomic Nucleus, held in Minsk from 25 January to 2 February 1965]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 12, 1965, 2235-2238

TOPIC TAGS: positron, gadolinium, spectrometer, scintillation spectrometer, tantalum, europium, gamma spectrum, isotope, radioactive decay

ABSTRACT: The positron emission of Gd^{147} is studied with a scintillation spectrometer and a triple-focussing beta spectrometer. The gadolinium sample was extracted from a tantalum target that had been irradiated for 2 hours at 660 Mev. The purpose of this work was to determine the Eu^{147} levels that are populated by positron decay of Gd^{147}. This is done by studying the triple coincidence of the 511-511 kev gamma quanta and the quanta of the entire gamma spectrum. The equipment used is diagrammed in the following paper (in the same journal).

Triple coincidence spectra are plotted for two geometries of the detectors. The lone peak at 230 kev leads the authors to assume that a

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L 26659-66
ACC NR: AP6017114 0

large fraction of the positrons populates the 229 kev level. The remainder is shown to go to ground state. The schematic diagram of Gd^{147} Eu^{147} is shown. Orig. art. has: 4 figures and 1 formula. [JPRS]

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 012 / OTH REF: 003

Card 2/2 BLG

KHALKHOPOV, A. D.

Khalkhopov, A. D. - "The analytical construction of a tractor engine with regulator", Sbornik nauch.-tekhn. rabot (Leningr. in-t mekhanizatsii sel. khoz-va), V, 1948, p. 67-96.

SO: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

KHALKIOPOV, A. D.

KHALKIOPOV, A. D. "On certain calculations related to snow plows," San. tekhnika (Nauch.-issled. in-t kommunal. khoz-va Ispolkoma Lengorsoveta), Issue 1, 1949, p. 196-211.

SO: U-3261, 10 April 53, (Letopis 'zhurnal 'nykh statey, No. 12, 1949)

KHALKIOPOVA, L.N.

120-6-5/36

AUTHORS: Zolotavin, A.V., Petrun'kin, A.M., and Khalkiopova, N.N.

TITLE: On the Use of High Sources in Beta-spectrometers with Double Focussing (Ob ispol'zovanii vysokikh istochnikov v β-spektrometrakh s dvoynoy fokusirovkoy)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.6, pp. 27 - 30 (USSR)

ABSTRACT: An increase in the size of the source in magnetic beta-spectrometers with double focussing leads to an increase in the "illumination" L, defined as the product of the mean solid angle Ω used in the spectrometer and the area of the source S. The above result was studied by the authors in Ref.3 in the case of a field giving accurate focussing of a "flat" beam. In the case of line source such a field gives first order focussing in the following directions: in the plane of symmetry and in the direction of the axis of symmetry of the beam. In order to find the upper limit to the size of the source, the shape of defining slits, and the shape of the receiving slit, it is necessary to find the image of the linear source. Such calculations were carried out in Ref.1, using a maximum source half-height of $z_0 = 0.15\,\rho_0$ where ρ_0 is the radius of the equilibrium orbit. Further calculations are reported in the present paper. The field in the plane of symmetry $z = 0$ is taken to be of the form:

$$H(\rho) = \frac{1}{\rho}\left\{1 + \frac{1}{2}(\rho - 1) - \frac{3}{8}(\rho - 1)^2 + \frac{3}{16}(\rho - 1)^3 - \frac{15}{256}(\rho - 1)^4 - \frac{3}{512}(\rho - 1)^5 + \ldots\right\} \qquad (1)$$

where cylindrical polar co-ordinates are used and ρ_0 is the unit of length. The components of the magnetic vector in space were found by the method described in Ref.4, using $\mathrm{div}\underline{H} = \mathrm{curl}\underline{H} = 0$. As before, the radius of the equilibrium orbit was taken to be 10 000. 25 orbits were calculated for different initial conditions. The images of the upper half of a linear source produced under different conditions are shown in Fig.1. It is shown that in beta-spectrometers with

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"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721720008-4"

KHAL'KOV, V.S., aspirant

Reliability of type P12-P16 low-power low-frequency transistors. Vest. TSNII MPS 24 no.5:45-49 '65. (MIRA 18:9)

SANETS, M.F., aspirant; KHAL'KOV, V.S., aspirant

Reliability of the "Avtomashinist" subway system. Vest. TSNII MPS 23 no.8:22-25 '64 (MIRA 18:2)

L 3000-66 EWT(l)/ESC(k)-2/T/EWA(h) IJP(c)

ACCESSION NR: AP5024857 UR/0231/65/000/005/0045/0049
656.25—52:621.382.21.3

AUTHOR: Khal'kov, V. S. (Aspirant)

TITLE: Reliability of low-power low-frequency transistors of types P13 through P16

SOURCE Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta. Vestnik, no. 5, 1965, 45-49

TOPIC TAGS: transistor, transistor gain, aging process, reliability, reliability prediction, circuit reliability, triode / P13 transistor, P14 transistor, P15 transistor, P16 transistor

ABSTRACT: Studies were conducted on the aging characteristics of transistors of the types P13-P16, as a function of environmental temperature and power dissipated. The changes in the parameters with aging can be considered in the design of automatic equipment in order to provide the desired lifetime with the specified reliability. The current gain (B) and a reverse current of the collector junction (I_{ko}) were monitored. For the temperature determination, groups of 50 of each type transistor were stored at four different temperatures for up to 4100 hrs.

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L 3000-66

ACCESSION NR: AP5024857

The tests were made at room temperature at various times during the storage interval. The arithmetic mean (M) and the standard deviation (σ) of the ratio of B/B_n (B_n is the initial B) are shown in Fig. 1 on the Enclosure. To compute the time to a certain stage in the aging (t) at any temperature (T), with (t_n) and (T_n) known,

$$\frac{t}{t_n} = e^{\delta(T_n - T)} = e^{0.1045(T_n - T)},$$

can be used up to 115C. Triode lifetime to the point where the parameters rapidly fall off at 115C is 300-400 hrs, at 60C it is 95 000-120 000 hrs, and at 25C it is 6-8 million hrs. With aging, B decreases by 2.84% per 10C. Since the power dissipation studies are costly and difficult, they were conducted for only P13 transistors. A circuit with a common collector, fed from a 15-v power supply, established power dissipation rates of 75, 180, 280, and 320 mw. The transistors were loaded for 7 hrs out of every 24 over 1000 hrs. The power dissipation aging was related to the temperature aging by establishing an equivalent temperature for the power dissipation. This was done by equating the thermal condition of the transistors under both conditions. Orig. art. has: 5 figures and 10 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01 SUB CODE: EC

NO REF SOV: 002 OTHER: 001

Card 2/3

L 3000-66

ACCESSION NR: AP5024857

ENCLOSURE: 01

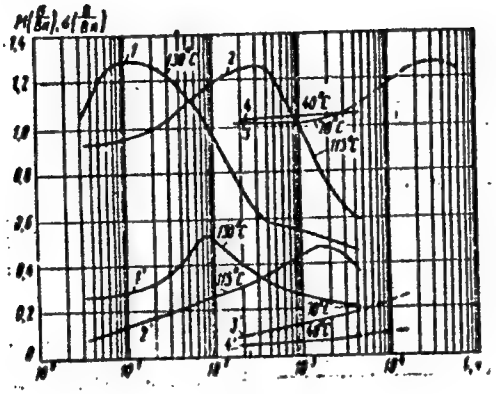


Fig. 1.
Time changes of the arithmetic mean (1,2,3,4) and the standard deviation (1', 2', 3', 4') of the changes of the parameter B in triodes of types P13-P16 stored at temperatures of 40, 70, 115, and 130C

Card 3/3 nd

KHAL'KOVTSEV, G.N.; SHOLOKHOV, V.F.; KAPLAN, A.S.; SLAVKIN, V.S.; YAVNILOVICH, Ye.A.; MEL'NICHENKO, S.D.; SMIRNOV, V.A.; MATYUSHINA, N.V., redaktor; GORDIYENKO, V.K., redaktor; ROZENTSVEYG, Ya.D., redaktor izdatel'stva; BERLOV, A.P., tekhnicheskiy redaktor

[Reference manual for State standards and technical specifications for ferrous metals] Spravochnik po gosudarstvennym standartam i tekhnicheskim usloviiam na chernye metally. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1956. 567 p. (MIRA 10:7)

1. Russia (1923- U.S.S.R.) Ministerstvo chernoy metallurgii. (Iron--Standards) (Steel--Standards)

KHALKUZIYEV, M.N., prof.; SALAKHUTDINOVA, R.M., assistent

Morphology of rami communicantes and rami interganglionares of the cervical section of the sympathetic trunk in human embryos and fetuses. Nauch. trudy SamMI 21:45-52 '62. (MIRA 17:5)

1. Iz kafedry anatomii cheloveka Samarkandskogo meditsinskogo instituta imeni Pavlova.

KHALIZIYEV, M.N., prof.; ARIFOVA, T.U., assistant

Morphology of rami communicantes of the lumbar section of the sympathetic trunk in human fetuses. Nauch. trudy SamMI 21: 63-65 '62. (MIRA 17:5)

1. Iz kafedry normal'noy anatomii cheloveka Samarkandskogo meditsinskogo instituta imeni Pavlova.

KHALKUZIYEV, M.N.

USSR/Morphology of Man and Animals - (Normal and Pathologic). S-3
The Nervous System.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 12404

Author : Khalkuziyev, M.N.
Inst : -
Title : On the Morphology of the Cervical Portion of the Sympathetic Nervous System in Embryos and Fetuses.

Orig Pub : Sb. nauchn. tr. Samarkandsk. med. in-ta, 1956, 11, 3-15

Abstract : A study was made of preparations of 100 embryos and fetuses (twenty-seven 2-4 months old, fifty-seven 4-7 months old and sixteen 7-9 months old). There was no sharp difference in length between the male and female fetuses. Overall, the most common finding was two ganglia (42% of the cases), then three ganglia (in 14.5%), five ganglia (in 2%) and 6 ganglia (in 0.5%). One ganglion was most frequent at the age of 2-4 months, two ganglia were most common in male fetuses and fetuses between 4 and 7 months.

Card 1/2

KHALLA, D.Yu.

Nature of the motion of Listeria monocytogenes. Mikrobiol.zhur. 26 no.4:26-29 '64. (MIRA 18:10)

1. L'vovskiy zooveterinarnyy institut.

KHALLER, E. K.

USSR/Soil Science. Tillage. Land Reclamation. Erosion. J-5

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24811.

Author : Haller, E.
Inst :
Title : On the Advisability of Spring Ploughing of Cultivated Loams.

Orig Pub: Sotsialistlik Pollumajandus, 1957, No 3, 102-104.

Abstract: No abstract.

Card : 1/1

KHALLER, E. K.

KLESMENT, I. [Klesment, I.]; KHALLIK, E. [Hallik, E.]

Comparative characteristics of the semicoking tars of oil shales. Khim. i tekh.gor.slan. i prod. ikh perer. no.12:169-180 '63. (MIRA 17:2)

SIPOVSKIY, G.V.; FEOFILOV, Ye.Ye.; KHALLIK, E.K. [Hallik, E.]; KAL'BERG, A.O. [Kalberg, A.]; SHMAGIN, Ya.G.

Distillation of chamber tar in an experimental atmospheric and vacuum distillation unit. Khim. i tekh. gor. slan. i prod. ikh perer. no.10:190-199 '62. (MIRA 17:5)

KHALLIK, O. G.

USSR/Chemistry, Biology (Agriculture) - Jul 51
Fuel, Fertilizers

"The Soils of Estonia," O. G. Khallik, Dr Agr Sci

"Nauka i Zhizn'" Vol XVIII, No 7, pp 33, 34

The ash of Estonian combustible shale is being used successfully as a lime fertilizer on local acidic soils. Industrial enterprises of the Estonian SSR which convert oil shale or use it as fuel yield more than 5 million tons of this ash per year.

199T11

Khallik, O.

Soils - Estonia

Soil research in the Estonian S.S.R. during 1951. Pochvovedenie, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

~~KHALIK, O.G.~~ KHALLIK, O.G.

1353. USE OF OIL SHALE ASH AS FERTILIZER. Khallik, O.G. Pochvovedenie (Pedology, Leningr.), Sept. 1954, [illegible] abstr. in Chim. et Industr., Sept. 1955, vol. 74, 500.

KHALLIK, O.G. (Hallik, O.G.)

Mapping saline soils of the Estonian S.S.R. Pochvovedenie no.6:99-101 Je '57. (MLRA 10:9)

(Estonia--Alkali lands)

KHALLIK, O.G. [Hallik, O.]

Effect of liming on the fertility of acid soils in the Estonian S.S.R. Pochvovedenie no.10:53-58 O '59. (MIRA 13:2)

1. Estonskaya sel'skokhozyaystvennaya akademiya.
(Estonia--Soil acidity) (Lime)

KHALLIK O.G.

HALLIK, O.G., prof.

Using organic fertilizers and lime on acid soils of the Estonian S.S.R. Zemledelie 8 no.11:60-62 N '60. (MIRA 13:10)

1. Chlen-korrespondent Vsesoyuznyy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina.
(Estonia--Fertilizers and manures)
(Estonia--Lime)

KHALLIK, R.A.; SEMENOVA, A.P.

New system for dyeing acetate rayon wrap-knit cloth. Tekst. prom. 24 no.8:62 Ag '64. (MIRA 17:10)

1. Zaveduyushchiy laboratoriyey trikotazhnoy fabriki "Marat", Tallin (for Khallik). 2. Starshiy master trikotazhnoy fabriki "Marat", Tallin (for Semenova).

KHALLIKSOO, Villu; ISOTAMM, A., retsenzent; TISLER, J, retsenzent; VEIMRE, E., retsenzent; ABO,L., red.; VAHTRE, I., tekhn. red.

[Use of transistors in radio receivers] Transistoride kasutamine raadioseadmetes. Tallinn, Eesti riiklik kirjastus, 1962. 140 p. (MIRA 15:5)

(Transistor radios)

KHALLO, I.G.

Method for managing an artificial pneumothorax and pneumoperitoneum in rural medical centers. Zdrav.Kazakh. 17 no.12:55-56 '57. (MIRA 12:6)

1. Glavnyy varch Ayrtauskogo tubdispansera, Kokchetavskoy oblasti.
(TUBERCULOSIS) (PNEUMOPERITONEUM, ARTIFICIAL) (PNEUMOTHORAX)

DOBROKHOTOV, M.N. ; SCHSCHERBAKOVA, K.F. ; KHALLO, V.F. ; GUZENKO, G.F.

Iron ore formation and iron ore deposits in the Belzerka areas in the lower Dnieper Valley. Geol. rud. mestorozh. no.6:12-29 N-D '60. (MIRA 14:3)

1. Dnepropetrovskaya ekspeditsiya Ukrainskogo nauchnoissledovatel'skogo geologorazvedochnogo instituta, Dnepropetrovsk.
(Dnieper Valley--Iron ores)

GAP[illegible], M.; [illegible]IYEV, M.; K[illegible], S.; [illegible]ZHNIKOV, L.; KI[illegible]KOV, K.; KHALIYOV, P.; AKAPOV, A.

In the land of sands and creation. Voen. znan. 41 no.2:26-28 F '65.

1. Predsedatel' Soveta Ministrov Turkmenskoy SSR (for Gapurov). 2. Predsedatel' sel'skokhozyaystvennoy arteli "Sovet Turkmenistana" (for Sopiyev). 3. Predsedatel' Leninskogo ispolnitel'nogo komiteta rayonnogo Soveta deputatov trudyashchikhsya Ashkhabada (for Karayeva). 4. Nachal'nik Ashkhabadskoy shkoly grazhdanskoy oborony Vsesoyuznogo obshchestva sodeystviya armii, aviatsii i flotu SSSR (for Avezmuradov). 5. Nachal'nik Ashkhabadskikh kursov grazhdanskoy oborony (for Klychmuradov). 6. Brigadir [illegible]. Predsedatel' kolkhoza "[illegible]", Turkmenskaya SSR (for [illegible]aliyev). 7. Sovet[illegible] [illegible]'nogo ot[illegible] [illegible]skoy oborony [illegible]noza Imeni [illegible]ina Turkmenskaya[illegible] (for [illegible]adov).

KHALLYYEVA, Enegul'

Effectiveness of chal in the treatment of some children's diseases. Zdrav. Turk. 4 no. 3:36-40 My-Je '60. (MIRA 13:10)

1. Iz kafedry detskikh bolezney (zav. - dotsent P.I. Katunin) Turkmenskogo gosudarstvennogo meditsinskogo instituta im. I.V. Stalina.
(MILK--THERAPEUTIC USE) (CHILDREN--DISEASES)

KHAIMANOV, V.

Wheat on the "Boevoi" State Farm. Zemledelie 24 no.12:72-73 D '62. (MIRA 16:1)

(Wheat)

RYZHKOV, O.A.; KHALMATOV, A.Kh.

Some data on the Paleozoic diagonal flat arch of Fergana.
Izv.AN SSSR. Ser.geol. 21 no.9:108-110 S '56. (MLRA 9:11)

1. Institut geologii Akademii nauk UzSSR, Tashkent.
(Fergana--Geology, Stratigraphic)

KHALMATOV, A.Kh.

Serpentinization of basic and ultrabasic rocks in the Sary-Tale intrusive. Izv. AN Uz. SSR. Ser. geol. no.4:37-45 '57. (MIRA 11:9)
(Alay Range--Serpentine)

KHALMATOV, A.Kh.

Basic and ultrabasic rocks in southern Fergana. Dokl. AN Uz. SSR no.9:19-22 '57. (MIRA 11:5)

1. Institut geologii AN UzSSR. Predstavlena akademikom AN UzSSR Kh.M. Abdullayevym.
(Fergana--Rocks, Igneous)

KHALMATOV, A.Kh. (Andizhan, prospekt Stalina, d.34)

Surgical anatomy of tracheal bifurcation. Vest. khir. 82 no.5: 83-90 My '59. (MIRA 12:7)

1. Iz kafedry anatomii (zav. - prof. I.G. Mardershteyn) Andizhanskogo meditsinskogo instituta i kafedry operativnoy khirurgii (nach. - prof. A.N. Maksimenkov) Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.
(TRACHEA)

KHALMATOV, A.Kh.

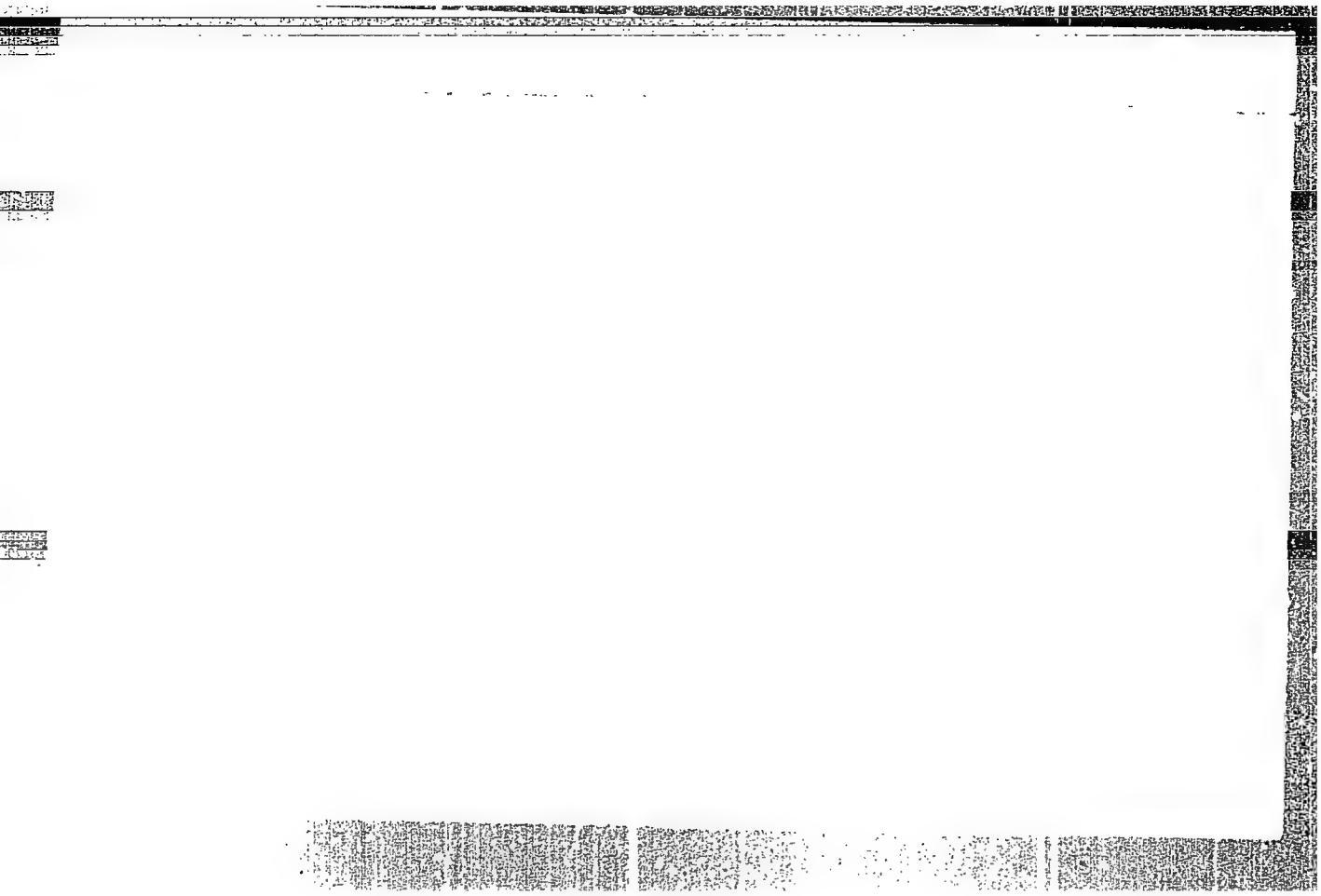
Geology and petrography of the Silurian sedimentary-effusive layer in the Sarytale Valley (southern Fergana). Zap. Uz. otd. Vses. min. ob-va no.14:57-69 '62. (MIRA 16:7)

(Fergana--Petrology)

KHALMATOV, K.; RUSTAMOV, Kh.R.

Adsorption of alkaloids salsoline and salsolidine by ion exchangers. Uzb. khim. zhur. 7 no.6:80-83 '63. (MIRA 17:2)

1. Tashkentskiy politekhnicheskiy institut.



APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721720008-4"

Country : USSR M
Category: Cultivated Plants. Medicinal. Essential Oil-Bearing. Toxins.

Abs Jour: RZhBiol., No 22, 1958, No 100488

Author : Khalmatov, Kh. Kh.
Inst : -
Title : Wild Growing Medicinal Plants of Urgutskiy Rayon in Samarkandskaya Oblast'.

Orig Pub: Med. zh. Uzbekistana, 1957, No 5, 66-69

Abstract: Results of the work of the expedition undertaken in summer 1952 by the Department of Pharmacognostics, Tashkent Pharmaceutical Institute, into Urgutskiy Rayon in Samarkandskaya oblast'. Diverse climatic and soil conditions of the rayon explain the great variety in vegetation. 59 species of wild-growing

Card : 1/2

M-188

KHALMATOV, Kh.Kh.

Medicinal plants described in the "Canon" of Ibn Sin. Report No.2. Izv.AN Uz.SSR.Ser.med. no.2:59-76 '58. (MIRA 12:5)

1. Tashkentskiy farmatsevticheskiy institut.
(BOTANY, MEDICAL)

KHALMATOV, Kh.Kh., dotsent

Study of medicinal plants described in the "Canon" of Avicenna.
Med.zhur.Uzb. no.7:65-72 Jl '58. (MIRA 13:6)

1. Iz kafedry farmakognozii (zav. - prof. P.L. Khazanovich)
Tashkentskogo farmatsevticheskogo instituta.
(BOTANY, MEDICAL)

KHALMATOV, Kh.Kh.; LUCHANSKAYA, V.N.

Anatomical texture of jute seeds. Apt. delo 10 no. 2:23-26 Mr-Ap '61. (MIRA 14:4)

1. Kafedra farmakognozii (zav. R.L. Khazanovich) Tashkentskogo farmatsevticheskogo instituta (dir.M.A. Azizov).
(JUTE)

KHALMATOV, Kh.Kh.; LUCHANSKAYA, V.N.

Study in culture of some species of the genus Erysimum. Report No.1. Apt. delo 11 no.1:31-34 Ja-F '62. (MIRA 15:4)

1. Tashkentskiy farmatsevticheskiy institut.
(ERYSIMUM) (PHARMACOGNOSY)

KHAZANOVICH, R.L.; KHALMATOV, Kh.Kh.; AKHMEDOVA, F.G.;
AVAKIMOVA, L., red.; TSAY, A., tekhn. red.

[Study of some medicinal plants of Uzbekistan] Izuchenie nekotorykh lekarstvennykh rastenii Uzbekistana. Tashkent, Medgiz UzSSR, 1963. 138 p. (MIRA 17:1)

KHALMATOV, Khamid Khalmatovich; AVAKIMOVA, L., red.

[Wild medicinal plants of Uzbekistan] Dikorastushchie lekarstvennye rasteniia Uzbekistana. Tashkent, Izd-vo "Meditsina" UzSSR, 1964. 276 p. (MIRA 18:6)

KHALMATOV, M.Kh.; NIKIFOROVA, L.M.

Application of radioisotopes to the study of the movement of salts in the soils of the Golodnaya Steppe. Izv. AN Uz.SSR. Ser. fiz.-mat. nauk 3:48-52 '61. (MIRA 14:8)

1. Tashkentskiy sel'skokhozyaystvennyy institut.
(Radioisotopes) (Golodnaya Steppe--Soil physics)

KHALMATOV, M.Kh.; NIKIFOROVA, L.M.

Use of radioisotopes for studying the movement of salts in the irrigation of saline soils by channels in industrial conditions. Izv. AN Uz.SSR Ser.tekh.nauk no.5:68-77 '61. (MIRA 14:11)

1. Tashkentskiy sel'skokhozyaystvennyy institut.
(Radioisotopes)
(Irrigation)

KHAIMATOV, Z.

Development of subsidence phenomena on the shores of the Tashkent Reservoir. Uzb. geol. zhur. 9 no.5:87-91 '65.
(MIRA 18:11)

1. Institut gidrogeologii i inzhenernoy geologii Gosudarstvennogo geologicheskogo komiteta SSSR. Submitted April 26, 1965.

KHALMATOV, Z.

Types and extent of modification of the banks of the Tashkent reservoir during two years of exploitation. Dokl. AN Uz.SSR. 21 no.3:39-42 '64. (MIRA 19:1)

1. Institut gidrogeologii i inzhenernoy geologii AN UzSSR.
Submitted July 9, 1963.

KHALMETOV, I.

Cand Agr Sci - (diss) "Effect of chrysalis-winding conditions on the quality of chrysalises of high-productivity white-chrysalis varieties of mulberry silkworm." Tashkent, 1961. 32 pp; with diagrams; (Ministry of Higher and Secondary Specialist Education Uzbek SSR, Tashkent Agricultural Inst); 300 copies; (KL, 6-61 sup, 233)

KHALMETOV, I.

Biodynamics of cocoon spinning in white-cocoon varieties of the silkworm Bomyx mori. Uzb. biol. zhur. no.3:65-69 '60. (MIRA 13:7)

1. Nauchno-issledovatel'skiy institut shelkovodstva Uzbekskoy Akademii sel'skokhozyaystvennykh nauk.
(SILKWORMS)

KHAIMEYEVA, Kh.I.

Orthodiagraphic changes in some protracted intestinal disorders. Med. zhur. Uzb. no.7:65-67 Jl '63.
(MIRA 17:2)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof. N.I. Ismailov) lechebnogo fakul'teta Tashkentskogo meditsinskogo instituta.

KHAIMKYEVA, Kh.I.

Electrocardiographic changes in lingering intestinal disorders of the chronic enterocolitis, pellagra and sprue type. Med. zhur. Uzb. no.6:45-49 Je'63 (MIRA 17:3)

1. Iz kafedry propedevtiki vnutrennikh bolezney Lechebnogo fakul'teta (zav. - prof. N.I. Ismailov) Tashkentskogo meditsinskogo instituta.

KHALMEYEVA, Kh.I.

Vascular reaction in some forms of chronic diarrhea. Izv. AN Uz.SSR.Ser.med. no.4:59-65 '58. (MIRA 12:5)

1. Tashkentskiy gosudarstvennyy meditsinskiy institut.
(DIARRHEA) (CARDIOVASCULAR SYSTEM)

ACC NR: AP6036396 SOURCE CODE: UR/0154/66/000/004/0003/0013

AUTHOR: Khalmosh, Ferents (Doctor)

ORG: Hungarian Academy of Sciences (Vengerskaya akademiya nauk)

TITLE: Gyrotheodolities and their use

SOURCE: IVUZ. Geodeziya i aerofotos"yemka, no. 4, 1966, 3-13

TOPIC TAGS: geodetic instrument, optic theodolite, surveying instrument, gyrotheodolitic, gyroscope

ABSTRACT: The present article describes the development and use of the Gi-B1 gyrotheodolite. This gyrotheodolite manufactured in Hungary consists of an opticomechanically coupled high-precision theodolite and a gyroscope. The initial design of the Gi-B1 gyrotheodolite was started in 1961. Mass production began in 1963. The angle-measuring component is a high-precision theodolite suitable for use at night and underground and is similar to the Te-B1 model. The sensitive element consists of a gyroscope and gyromotor armature suspended on a vertical torsion tape assuring the necessary freedom of movement. The axis of revolution of the gyromotor is in the horizontal plane. The rotation velocity is 2400 rad/sec. The power source for the gyromotor consists of a semiconductor quartz oscillator located in the thermostat, with a frequency of 416.6 cps and 3.3×10^{-5} cps stability per 1C, fed by a 12-v storage battery. Field experiments

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UDC: 528.521->528.526.6

have shown that one measurement takes approximately 28 to 30 min. A total of 75 control measurements conducted during a 10-month period show that the variation of the operating constant does not exceed 30" and that the main factors affecting the precision of the instrument are the technical parameters of the gyrotheodolite. A statistical comparison of 747 azimuth determinations by gyroscopic and astronomic methods gives a mean error of ±14".3 per sighting. This instrument is widely used in underground measurement projects, such as city sewer lines, subways, mines, etc., since only one point with known coordinates is required. The combined use of theodolites and gyrotheodolites in traversing work results in great time savings in orienting independent triangulation nets, city tranverses, and reforestation survey projects. Use of the gyrotheodolite with radio and electrooptical telemeters provides a simplified solution to geodetic surveys in the polar regions, building remote radar stations, geophysical prospecting, and magnetic measurements. The Gi-B1 model meets requirements and is superior to other known models. A recent modification, the Gi-B2, is equipped with an electrooptical monitoring system which reportedly increases the accuracy of the instrument by 20—30%. Orig. art. has: 13 formulas and 5 figures.

SUB CODE: 08/ SUBM DATE: 07Apr65/ ORIG REF: 003/ ATD PRESS: 5108

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Some problems in designing the turbines for water power plants.
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TITLE: Recent investigations of the hydrolysis and polycondensation of mixtures of methyl trichlorosilane and dimethyl dichlorosilane

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 44, no. 4, 1965, 373-383

TOPIC TAGS: hydrolysis, polycondensation, silane

ABSTRACT: Mixtures of methyl trichlorosilane and dimethyl dichlorosilane were subjected to hydrolysis under carefully adjusted experimental conditions. The correlation between the distribution of molecular weight in the primary hydrolysis product and the composition of the system to be hydrolyzed was established. Furthermore, the effect of the pH value, and of various cations and anions were also considered and conclusions were drawn as to the assumed mechanism of the hydrolysis-polycondensation process. Orig. art. has: 10 figures, 6 formulas and 1 table. [Based on authors' Eng. abst.] [JPRS: 33,540]

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